

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**  
**BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

APPLICANT: Michael Epstein

SERIAL NO.: 09/894,391 EXAMINER: Lan dai T. **TRUONG**

FILED: 28 June 2001 ART UNIT: 2152

CONFIRMATION NO.: 6445

FOR: TEMPORAL PROXIMITY TO VERIFY PHYSICAL  
PROXIMITY

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P.O. Box 1450  
Alexandria, VA 22313-1450

**APPEAL BRIEF**

**Real Party in Interest:**

The real party in interest in this application is KONINKLIJKE PHILIPS ELECTRONICS N.V., the assignee of the inventor's interests in this invention.

**Related Appeals and Interferences:**

There are no other appeals and/or interferences related to this application.

**Status of Claims:**

Claims 4-10 stand finally rejected by the Examiner. Claims 1-3 and 11-13 have been cancelled. The appealed claims are set forth in the attached Appendix.

**Status of Amendments:**

The Examiner's "Advisory Action Before Filing of an Appeal Brief" dated 8 December 2006 indicated that the reply filed by applicant on 22 November 2006 would be entered for purposes of appeal. The Appendix contains the appealed claims.

**Summary of Claimed Subject Matter:**

The claimed invention relates to data protection and protecting data from CDs and DVDs from illicit copying from remote locations.

If a person purchases a CD or DVD, the person traditionally has a right to copy or otherwise process the material, for backup purposes, to facilitate use, and so on. When the person who purchased the material desires to use the material, it is not unreasonable to assume that the person will have the CD or DVD within physical proximity of the device that will use the material. For example, a person may have a copy of a music CD at his or her personal computer, and make a personal backup copy of the CD on the personal computer.

On the other hand, another way that people make copies of music and video content is by way of remote access through Internet peer-to-peer and file sharing Web sites and networks. In such cases, the device of the person accessing the content will likely be located physically remotely from the CD or DVD that holds the content. In these instances, the person making the copy of the CD's content will likely not have proper ownership of the material, and will likely not have physical possession of the material. Thus, in such cases, CD or DVD content will be physically remote from the device that is intended to use the material.

The claimed invention thus provides for security by detecting if a device accessing material from a CD or DVD is located within physical proximity of the CD or DVD. The claimed invention determines this physical proximity by calculating the time (time interval) between certain responses and certain requests. As described in the application as published (See US 2003/0005324 A1) at paragraph [0007]:

Generally, physical proximity corresponds to temporal proximity. If the response time indicates a substantial or abnormal lag between request and response, the system assumes that the lag is caused by the request and response having to travel a substantial or abnormal physical distance, or caused by the request being processed to generate a response, rather than being answered by an existing response in the physical possession of a user. If a substantial or abnormal lag is detected, the system is configured to limit subsequent access to protected material by the current user, and/or to notify security personnel of the abnormal response lag.

As shown in FIG. 1 of the present invention, a processor 120 is configured to process material from a CD 130 via an access device such as a reader 132. A timer 128 is configured to measure the time between a request for verification from the verifier 126, and a response from an external source, such as the actual CD 130, or a remote source 140, coupled to CD imitator 142. Typically, a response back from a (unauthorized) CD imitator 142 and remote source will take longer (physically greater distance away and

thus, temporally greater) than a response from an authorized CD (physically lesser distance and temporally lesser).

To achieve this end, claim 4 recites:

4. A security system comprising:

a verifier for determining an authorization to process protected material, based on one or more responses to one or more requests; and

a timer for measuring response times associated with the one or more responses to the one or more requests,

wherein

the verifier determines the authorization based at least in part on an assessment of the response times, and wherein

the response times are correlated to a physical proximity between the verifier and a first source of the one or more requests, and between the verifier and a second source of the one or more responses.

Thus, claim 4 recites, *inter alia*, "a verifier for determining an authorization to process protected material, based on one or more responses to one or more requests," "a timer for measuring response times associated with the one or more responses to the one or more requests," "the verifier determines the authorization based at least in part on an assessment of the response times", and "the response times are correlated to a physical proximity between the verifier and a first source of the one or more requests, and between the verifier and a second source of the one or more requests."

Thus, by way of claim 4, authorization of, for example, a CD can be facilitated by "a verifier for determining an authorization to process protected material, based on one or more responses to one or more requests," and "a timer for measuring response times associated with the one or more responses to the one or more requests." As described

above, "the verifier determines the authorization based at least in part on an assessment of the response times", and "the response times are correlated to a physical proximity between the verifier and a first source of the one or more requests, and between the verifier and a second source of the one or more requests."

Thus, the claimed invention uses the response times to determine physical proximity. In turn, the physical proximity (of, for example, a CD) is used to determine whether use of the CD is authorized.

Claim 5 recites:

5. A security system comprising:

a verifier for determining an authorization to process protected material, based on one or more responses to one or more requests, and

a timer for measuring response times associated with the one or more responses to the one or more requests,

wherein

the verifier determines the authorization based at least in part on an assessment of the response times, and wherein

the assessment of the response times forms an assessment of whether the one or more responses were communicated locally to the verifier or via a network connection.

Claim 5 is similar to claim 4, except that instead of a system whereby "the response times are correlated to a physical proximity between the verifier and a first source of the one or more requests, and between the verifier and a second source of the one or more requests," in claim 5, "the assessment of the response times forms an assessment of whether the one or more responses were communicated locally to the verifier or via a network connection."

Claim 6 recites:

6. A security system comprising:

a verifier for determining an authorization to process protected material, based on one or more responses to one or more requests, and

a timer for measuring response times associated with one or more responses to the one or more requests,

wherein

the verifier determines the authorization based at least in part on an assessment of the response times, and wherein

the assessment of the response times forms an assessment of whether the one or more responses were immediately available, or whether the one or more responses were a result of a determination.

Claim 6 is similar to claims 4 and 5, except that a system is claimed whereby "the assessment of the response times forms an assessment of whether the one or more responses were immediately available, or whether the one or more responses were a result of a determination."

Claim 7 recites:

7. A processing system comprising:

a renderer for receiving a plurality of data items corresponding to a data set, and for producing therefrom a rendering corresponding to a select data item;

a verifier, operably coupled to the renderer, for

precluding the rendering corresponding to the select data item in dependence upon whether other data items of the plurality of data items are available to the renderer; and

a timer, operably coupled to the verifier and the renderer, for measuring response times associated with responses to requests for the other data items from the renderer, wherein

the verifier precludes the rendering based at least in part on an assessment of the response times.

Claim 7 is conceptually similar to claims 4-6 described above, and recites a system comprising "a renderer for receiving a plurality of data items corresponding to a data set, and for producing therefrom a rendering corresponding to a select data item," "a verifier, operably coupled to the renderer, for precluding the rendering corresponding to the select data item in dependence upon whether other data items of the plurality of data items are available to the renderer," and "a timer, operably coupled to the verifier and the renderer, for measuring response times associated with responses to requests for the other data items from the renderer," wherein "the verifier precludes the rendering based at least in part on an assessment of the response times."

### **Grounds of Rejection To Be Reviewed**

The grounds of rejection to be reviewed are:

- 1) Whether Claim 4 is unpatentable under 35 U.S.C. § 103(a) as an obvious combination of U.S. Patent Publication No. US 2002/0154777 (*Candalore*), U.S. Patent No. 6,910,221 (*Honda*) and U.S. Patent No. 5,659,617 (*Fischer*);
- 2) Whether Claim 5 is unpatentable under 35 U.S.C. § 103(a) as an obvious combination of *Candalore*, *Honda*, *Fischer* and U.S. Patent Publication No. US 2002/0069281 (*Dillenberger*);

3) Whether Claims 7 and 9 are unpatentable under 35 U.S.C. § 103(a) as an obvious combination of U.S. Patent No. 6,785,815 (*Serret-Avila*), *Honda* and U.S. Patent No. 4,924,378 (*Hershey*); and

4) Whether Claim 6 is unpatentable under 35 U.S.C. § 103(a) as an obvious combination of *Hershey* and *Fischer*.

Applicants maintain that each of these issues should be decided in favor of patentability because none of the cited references teach or suggest all of the claim limitations of the present claims.

## **Argument**

There are four groups of claims presenting different considerations for review: a) claim 4; b) claim 5; c) claims 7-10; and d) claim 6. Each group is argued separately.

### **1. The Combination of *Candalore*, *Honda* and *Fischer* Does Not Make Obvious the Invention of Claim 4**

As set forth in MPEP §2143, a *prima facie* case of obviousness requires that "prior art reference (or references when combined) must teach or suggest all the claim limitations." *See, e.g., In re Royka*, 180 USPQ 580 (CCPA 1974).

*Candalore* describes a system wherein a satellite TV receiver can include a GPS receiver. The GPS receiver receives GPS location data as well as a time stamp for reception of the data. The use of the time stamp allows the sender of a digital TV signal to check if the GPS signal is current (thus indicating the current location of the receiver), or a copy (or spoofed version) of a GPS signal, incorrectly indicating the location of the receiver.

*Honda* describes a moving image communication evaluation system and moving image communication evaluation method in which a response time measurement section 50 measures the response time between a moving image request, initiated at section 11 in cooperation with operation section 23, the request being sent to a communication terminal 30 via a network 10, and the displaying of the requested moving image on a moving image display section 12.

*Fischer* discloses a method for providing location certificates, in which a location certification unit (LCU) includes a position determination unit (PDU) which "includes conventional position determining apparatus for receiving Loran and/or GPS signals and for computing its position" (col. 2, line 52 to col. 3, line 1) .

Claim 4 recites, *inter alia*, a verifier for determining an authorization to process protected material, based on one or more responses to one or more requests," "a timer for measuring response times associated with the one or more responses to the one or more requests," "the verifier determines the authorization based at least in part on an assessment of the response times", and "the response times are correlated to a physical proximity between the verifier and a first source of the one or more requests, and between the verifier and a second source of the one or more requests."

As described above, while *Candalore* describes the use of time-stamped GPS signals, *Candalore* does not describe all of the features of claim 4. For example, *Candalore* does not describe "a timer for measuring response times associated with the one or more responses to the one or more requests." Nor does *Candalore* describe "the response times are correlated to a physical proximity between the verifier and a first

source of the one or more requests, and between the verifier and a second source of the one or more requests."

Neither *Honda* nor *Fischer* make up for the shortcomings of *Candalore*, as *Honda* merely describes a response time measurement section 50 that measures the response time between a moving image request, and *Fischer* merely describes providing location certificates, in which a location certification unit (LCU) includes a position determination unit (PDU) which "includes conventional position determining apparatus for receiving Loran and/or GPS signals and for computing its position" (col. 2, line 52 to col. 3, line 1) .

Thus, neither "a timer for measuring response times associated with the one or more responses to the one or more requests," nor "the response times are correlated to a physical proximity between the verifier and a first source of the one or more requests, and between the verifier and a second source of the one or more requests" are taught or suggested by the *Candalore*, *Honda* and *Fischer* combination.

In view of the foregoing, it is respectfully submitted that Claim 4 is patentable over *Candalore*, *Honda* and *Fischer*, either taken alone, or in combination.

**2. The Combination of *Candalore*, *Honda*, *Fischer* and *Dillenberger* Does Not Make Obvious the Invention of Claim 5**

As set forth in MPEP §2143, a *prima facie* case of obviousness requires that "prior art reference (or references when combined) must teach or suggest all the claim limitations." *See, e.g., In re Royka*, 180 USPQ 580 (CCPA 1974).

Similarly to claim 4, discussed above, claim 5 recites "the verifier determines the authorization based at least in part on an assessment of the response times, and wherein the assessment of the response times forms an assessment of whether the one or more responses were communicated locally to the verifier or via a network connection."

As described above, the *Candalore-Honda-Fischer* combination does not describe such a feature.

*Dillenberger* describes a system that collects performance related metrics, including response times, but does not make up for the shortcomings of the *Candalore-Honda-Fischer* combination.

Thus, at least the limitation of "the verifier determines the authorization based at least in part on an assessment of the response times, and wherein the assessment of the response times forms an assessment of whether the one or more responses were communicated locally to the verifier or via a network connection" is not taught or suggested by the *Candalore, Honda, Fischer and Dillenberger* combination.

In view of the foregoing, it is respectfully submitted that Claim 5 is patentable over *Candalore, Honda, Fischer and Dillenberger*, either taken alone, or in combination.

**3. The Combination of *Serret-Avila, Honda and Hershy* Does Not Make Obvious the Inventions of Claims 7 and 9**

As set forth in MPEP §2143, a *prima facie* case of obviousness requires that "prior art reference (or references when combined) must teach or suggest all the claim limitations." *See, e.g., In re Royka*, 180 USPQ 580 (CCPA 1974).

*Serret-Avila* describes methods and systems for encoding and protecting data using digital signature and watermarking techniques, which includes a renderer for rendering a selected data item out of a plurality of data items corresponding to a data set as presented on a CD or DVD. In addition, the *Serret-Avila* system includes "a signature verification engine for verifying the integrity of a portion of the electronic file using a digital signature... ."

*Hershey* describes a license management system and license storage key in which an application program to be run on a computer must be assigned a license in the license storage key associated with the computer before it is permitted to run. In particular, the computer on which the application program is to be run requests a license for the application program. The license storage key then searches for the appropriate license and responds to the computer when the license is found. As indicated at col. 5, lines 27-36, the computer includes a timer for enabling the computer to keep track of responses for which it is waiting. If a response is not received within the time set by the timer, then an error is sent to the computer.

Claim 7 recites, *inter alia*, "a renderer for receiving a plurality of data items corresponding to a data set, and for producing therefrom a rendering corresponding to a selected data item," "a verifier, operably coupled to the renderer, for precluding the rendering corresponding to the selected data item in dependence upon whether other data

items of the plurality of data items are available to the renderer", "a timer, operably coupled to the verifier and the renderer, for measuring response times associated with responses to requests for the other data items from the renderer," and "wherein the verifier precludes the rendering based at least in part on an assessment of the response times."

The Examiner contends that the "renderer" as claimed in claim 7 is found in *Serret-Avila*, and indicates, with reference to the Abstract, lines 5-11, and col. 3, lines 29-46, that the "verifier" as claimed in claim 7 is also found in *Serret-Avila*, and indicates col. 3, lines 29-36, i.e., the Examiner believes that the signature verification engine is equivalent to the "verifier" as claimed; and that the "timer" as claimed in claim 7 is found in *Honda*, and indicates col. 3, lines 35-67, col. 4, lines 1-67, col. 9, lines 1-67 and col. 10, lines 1-67, i.e., the response time measurement section 50 is equivalent to the "timer" as claimed.

It should be noted that the Examiner acknowledges that the combination of *Serret-Avila* and *Honda* does not describe the limitation "wherein the verifier precludes the rendering based at least in part on an assessment of the response times." However, the Examiner contends that *Hershey* describes "a timer is set in the operating system of the work station to keep track of responses it is waiting for, and based on comparison between response time and the time is set by timer the verifier determines that it is valid request or not."

As indicated in MPEP §2143.01, "Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention

where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art." Further, "[t]he mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).

Applicant submits that the Examiner is mistaken. In particular, while *Serret-Avila* includes a form of a verifier, the signature verification engine of *Serret-Avila* does not preclude "the rendering corresponding to the selected data item in dependence upon whether other data items of the plurality of data items are available to the renderer," as claimed in claim 7. Rather, the signature verification engine of *Serret-Avila* checks whether the selected data set includes the digital signature (Abstract lines 10-13).

Further, applicant submits that *Hershey* does not provide any suggestion or motivation for inclusion of the timer function therein into the response time measurement section of *Honda*, and the inclusion of this combination into *Serret-Avila*.

Claim 9 depends from claim 7, and further narrows and defines that claim, that has been discussed above and is believed to be allowable over the proposed *Serret-Avila-Honda-Hershey* combination. Accordingly, for at least these reasons, claim 9 is deemed to distinguish patentably over the proposed *Serret-Avila-Honda-Hershey* combination.

Thus, at least the limitation of "the rendering corresponding to the selected data item in dependence upon whether other data items of the plurality of data items are

available to the renderer," is not taught or suggested by the *Serret-Avila-Honda-Hershey* combination.

Claims 8, and 10 depend from claim 7, and are deemed patentable over any *Serret-Avila-Honda-Hershey* combination, alone, or together with the other references cited by the Examiner (i.e., U.S. Patent No. 6,496,802 (*van Zoest*) and U.S. Patent No. 6,954,786 (*Vered*)).

In view of the foregoing, it is respectfully submitted that Claim 7 (and Claim 8-10 depending therefrom) is patentable over *Serret-Avila, Honda and Hershy*, either taken alone, or in combination with *van Zoest* and *Vered*).

**4. The Combination of *Hershey and Fischer* Does Not Make Obvious the Invention of Claim 6**

As set forth in MPEP §2143, a *prima facie* case of obviousness requires that "prior art reference (or references when combined) must teach or suggest all the claim limitations." *See, e.g., In re Royka*, 180 USPQ 580 (CCPA 1974).

Claim 6 is patentable over any *Hershey-Fischer* combination, at least for the reasons described above with respect to claims 4 and 5, as claim 6 recites "the verifier determines the authorization based at least in part on an assessment of the response times, and wherein the assessment of the response times forms an assessment of whether the one or more responses were immediately available, or whether the one or more responses were a result of a determination," which is not taught or suggested by the proposed combination of references.

In view of the foregoing, it is respectfully submitted that Claim 6 is patentable over *Hershey and Fischer*, either taken alone, or in combination.

In view of the foregoing, the Final Rejection of the claims should be reversed.

Respectfully submitted,

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Date: 22 June 2007

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**CERTIFICATE OF MAILING OR TRANSMISSION UNDER 37 C.F.R. 1.8**

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Name: James Dobrow

/ James Dobrow /

Signature: \_\_\_\_\_

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**Claims Appendix:**

Claims 1-3 (cancelled).

4. (previously presented) A security system comprising:

a verifier for determining an authorization to process protected material, based on one or more responses to one or more requests; and

a timer for measuring response times associated with the one or more responses to the one or more requests,

wherein

the verifier determines the authorization based at least in part on an assessment of the response times, and wherein

the response times are correlated to a physical proximity between the verifier and a first source of the one or more requests, and between the verifier and a second source of the one or more responses.

5. (previously presented) A security system comprising:

a verifier for determining an authorization to process protected material, based on one or more responses to one or more requests, and

a timer for measuring response times associated with the one or more responses to the one or more requests,

wherein

the verifier determines the authorization based at least in part on an assessment of the response times, and wherein

the assessment of the response times forms an assessment of whether the one or more responses were communicated locally to the verifier or via a network connection.

6. (previously presented) A security system comprising:
  - a verifier for determining an authorization to process protected material, based on one or more responses to one or more requests, and
    - a timer for measuring response times associated with one or more responses to the one or more requests,
  - wherein
    - the verifier determines the authorization based at least in part on an assessment of the response times, and wherein
      - the assessment of the response times forms an assessment of whether the one or more responses were immediately available, or whether the one or more responses were a result of a determination.

7. (previously presented) A processing system comprising:
  - a renderer for receiving a plurality of data items corresponding to a data set, and for producing therefrom a rendering corresponding to a select data item;
  - a verifier, operably coupled to the renderer, for precluding the rendering corresponding to the select data item in dependence upon whether other data items of the plurality of data items are available to the renderer; and
    - a timer, operably coupled to the verifier and the renderer, for measuring response times associated with responses to requests for the other data items from the renderer, wherein

the verifier precludes the rendering based at least in part on an assessment of the response times.

8. (previously presented) The processing system as claimed in claim 7, wherein the assessment of the response times corresponds to determination of whether the other data items are located in physical proximity to the renderer.

9. (previously presented) The processing system as claimed in claim 7, wherein the verifier is configured to form the assessment based on at least one of:  
an average of the response times,  
a comparison of the response times to one or more  
threshold times, and  
a statistical test based on the response times.

10. (previously presented) The processing system as claimed in claim 7, wherein the verifier is configured to randomly select the other data items.

Claims 11-13 (canceled).

**Evidence Appendix:**

There is no evidence which had been submitted under 37 C.F.R. §§ 1.130, 1.131 or 1.132 or any other evidence entered by the Examiner and relied upon by Appellant in this Appeal.

**Related Proceedings Appendix:**

Because there are no related proceedings identified herein, there are no decisions rendered by a court or the Board in any proceedings identified pursuant to paragraph c(1)(ii) of 37 C.F.R. § 41.37.

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**RESPONSE TO NOTIFICATION OF NON-COMPLIANT APPEAL BRIEF**

Applicants submitted an Appeal Brief in this case on April 11, 2007. Applicants subsequently received a Notification of Non-Compliant Appeal Brief dated May 22, 2007 ("Notification"). The Notification requested a revision of the headings, and explicit mention of claims. 4, 5, 6 and 7 in the Summary of Claimed Subject Matter.

In response to the Notification, Applicants submit an amended Appeal Brief, which includes revised headings, and explicit recitations of claims 4, 5, 6 and 7 in the Summary of Claimed Subject Matter.

Accordingly, Applicants submit that the Appeal Brief is in compliance with 37 CFR § 41.37.

Respectfully submitted,

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Date: 22 June 2007

/James Dobrow/

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Name: James Dobrow

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Signature: \_\_\_\_\_

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